

Work Order ID 54720-2

December 17, 2009 8:51:04 AM



Page 1

Item ID: D2360

Revision ID:

Item Name: Litter Tie Down Assembly

Start Date: 17/12/2009 Start Qty: 6.00

Required Date: 30/12/2009 Req'd Qty: 6.00

Reference:

Approvals:

Process Plan: *PP*

Date: *09/12/19*

QC:

Date:

Accept



Setup Start



Stop



Cust Item ID:

Customer:

Run Start



Stop



Tooling:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D2360

Rev D

100



Bandsaw

Jeaspa Bandsaw

BAND SAW

Memo

Cut blanks: 12.65" Long

0.00

0.00

OK 09/12/19

6 0

110



HAAS 1

HAAS CNC vertical machine #1

HAAS CNC VERTICAL MACHINING #1

Memo

Machine as per Folio D2341 and Dwg D2341
2-Deburr

0.00

0.00

OK 09/12/19

6 0

120



QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

0.00

OK 09/12/19

6 0

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54720



Page 2

December 17, 2009 8:51:04 AM

Item ID: D2360

Accept



Setup Start



Revision ID:

Stop



Item Name: Litter Tie Down Assembly

Start Date: 17/12/2009 Start Qty: 6.00



Cust Item ID:

Required Date: 30/12/2009 Req'd Qty: 6.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

QC8- Inspect parts - second check

0.00

H.A 09/12/21

6

φ



QC

Memo

0.00

Quality Control

140

Chemical Conversion Coat per QSI005 4.1

0.00

BL 09-12-22

6

φ



HandFinish

Memo

0.00

Hand Finishing

150

White Gloss(Ref.4.3.5.1) per QSI005 4.3-Alum

0.00

M118170

BL 09-12-22

6

φ



Powdercoat

Memo

0.00

Powder Coating

START TIME:

10:30

OVEN TEMPERATURE:

300

FINISH TIME:

11:00

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54720



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December 17, 2009 8:51:04 AM

Item ID: D2360

Accept



Setup Start



Revision ID:

Stop



Item Name: Litter Tie Down Assembly

Start Date: 17/12/2009 Start Qty: 6.00



Cust Item ID:

Required Date: 30/12/2009 Req'd Qty: 6.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

11 09-12-22

(X6) 0

Quality Control

170

Small Fab

0.00



Small Fab

Memo

0.00

Small Fab

Assemble as per dwg D2360

10/01/18 (45)

180

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

7 S 10/01/18

(5)

Quality Control

Work Order ID 54720

Page 4

December 17, 2009 8:51:04 AM

Item ID: D2360

Accept



Setup Start



Revision ID:

Stop



Item Name: Litter Tie Down Assembly

Start Date: 17/12/2009 Start Qty: 6.00



Cust Item ID:

Required Date: 30/12/2009 Req'd Qty: 6.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

Identify as per dwg & Stock Location 225

0.00



Packaging

Memo

0.00

Packaging

10-17-18

sl (X)

200

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/01/19

MF 10-1-18

Picklist Print

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Page 1

Work Order ID: 54720

Parent Item: D2360

Parent Item Name: Litter Tie Down Assembly

Start Date: 17/12/2009

Required Date: 30/12/2009

Comments:

Start Qty: 6.00

Required Qty: 6.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D6201 Manufactured No

100

f

20.0000

6.6568



"T" Extrusion

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

MAT

20

45500

20

AN526C1032R18

Purchased

No

170

Each

471.0000

6.0000



Screw

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

471

101458

83

108079

194

4523

194

6.6568 mk 09/12/19
10-1-5 (x) SL

6

Picklist Print

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Page 2

Work Order ID: 54720

Parent Item: D2360

Parent Item Name: Litter Tie Down Assembly


Start Date: 17/12/2009

Required Date: 30/12/2009

Comments:

Start Qty: 6.00

Required Qty: 6.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960JD10  Washer		Purchased	No			170	Each	1,540.000	12.0000			



10-1-5

sl

Warehouse	Loc Qty	Loc Code
<u>Location</u>		
Main Warehouse		
ST	1540	
105442	8	
109059	2	
109840	23	
110139	2	
110985	202	
111279	5	
111668	48	
112314	228	
112369	22	
113149	1000	

AN960JD10L



Washer

Purchased

No

170

Each

5,269.000 48.0000



10-1-5

sl

bx

Warehouse	Loc Qty	Loc Code
<u>Location</u>		
Main Warehouse		
ST	5269	
101291	16	
104885	153	
105793	236	
109632	250	
110985	4614	

December 17, 2009 8:51:08 AM

Shop Packet Print

Page 2

Picklist Print

December 17, 2009 8:51:08 AM

Work Order ID: 54720



Parent Item: D2360



Parent Item Name: Litter Tie Down Assembly

Start Date: 17/12/2009

Required Date: 30/12/2009

Comments:

Start Qty: 6.00

Required Qty: 6.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D2002-015

Manufactured

No

170

Each

84.0000

12.0000



Knob

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

84

16177

69

39056

15

D2345

Manufactured

No

170

Each

12.0000

6.0000



Lock Channel

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

12

39474

12

D2366

Manufactured

No

170

Each

27.0000

12.0000



Lock Handle

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

27

37431

1

42919

26

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Shop Packet Print

Picklist Print

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Page 4

Work Order ID: 54720

Parent Item: D2360

Parent Item Name: Litter Tie Down Assembly

Comments:

Start Date: 17/12/2009

Required Date: 30/12/2009

Start Qty: 6.00

Required Qty: 6.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Re m aining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	---------------------------------------	---------------	----------------	--------

D2367



Handle Knob

Manufactured

No

170

Each

18.0000

6.0000



10-1-5 sl

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

18

33794

2

42975

16

D2372



Quick Release

Manufactured

No

170

Each

10.0000

12.0000



10-1-5 sl
10-1-15 sl
B 55058

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

10

41426

10

D2373



Spring

Manufactured

No

170

Each

25.0000

6.0000



10-1-5 sl

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

25

41427

5

42920

20

December 17, 2009 8:51:08 AM

Shop Packet Print

Page 4

Picklist Print

December 17, 2009 8:51:08 AM

Work Order ID: 54720



Parent Item: D2360

Parent Item Name: Litter Tie Down Assembly

Start Date: 17/12/2009

Required Date: 30/12/2009

Comments:

Start Qty: 6.00

Required Qty: 6.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D2444

Manufactured

No

170

Each

11.0000

6.0000



Pip Pin Assembly

10-1-5 sl

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

11

43978

1

45387

2

54533

8

4

MS20470AD3-4

Purchased

No

170

Each

11.763.00

6.0000



Rivet, Universal Head

10-1-5 sl (60)

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

11763

111477

8332

15541

3431

6

Picklist Print

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Page 6

Work Order ID: 54720

Parent Item: D2360

Parent Item Name: Litter Tie Down Assembly

Start Date: 17/12/2009

Required Date: 30/12/2009

Comments:

Start Qty: 6.00

Required Qty: 6.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

MS21042L3

Purchased

No

170

Each

2,489.000

18.0000



10-1-1952

Nut

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

2489

110844

35

111274

27

111668

64

112313

1863

112385

500

18

MS27039-1-13

Purchased

No

170

Each

109.0000

6.0000



10-1-5 sl 62

Screw

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

109

105211

9

110844

100

6

December 17, 2009 8:51:08 AM

Shop Packet Print

Page 6

Picklist Print

December 17, 2009 8:51:09 AM

Page 7

Work Order ID: 54720

Parent Item: D2360

Parent Item Name: Litter Tie Down Assembly

Start Date: 17/12/2009

Required Date: 30/12/2009

Comments:

Start Qty: 6.00

Required Qty: 6.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

MS27039-1-15 Purchased No

170

Each

163.0000

12.0000



10-1-5 SL

Screw

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

163

106903

3

108169

4

109321

4

111916

52

112794

100

12

NAS679A3W

Purchased

No

170

Each

244.0000

6.0000



10-1-5 (6) SL

Nut

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

244

1463

51

2409

193

6

December 17, 2009 8:51:09 AM

Shop Packet Print

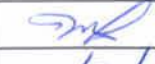
Page 7



DART AEROSPACE LTD		Work Order:	
Description: Litter Tie Down Bracket (Locking)		Part Number:	D2341
Inspection Dwg: D2341	Rev: F	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.500	+/-0.010	1.503	—			
1.000	+/-0.010	1.000	—			
Ø0.242	+0.005/-0.001	Ø.244	—			
Ø0.191	+0.005/-0.001	Ø.195	—			
R0.250	+/-0.010	R.250	—			
1.700	+/-0.010	1.750	—			
0.750	+/-0.010	.750	—			
2.750	+/-0.010	2.752	—			
11.000	+/-0.005	11.000	—			
5.500	+/-0.010	5.500	—			
1.584	+/-0.010	1.586	—			
Ø0.191	+0.005/-0.001	Ø.195	—			
2.610	+/-0.010	2.611	—			
0.844	+/-0.010	.844	—			
1.250	+/-0.010	1.251	—			
0.750	+/-0.010	.752	—			
12.500	+/-0.010	12.506	—			
3.313	+/-0.010	3.314	—			
4.250	+/-0.010	4.252	—			
0.400	+/-0.010	.400	—			

Measured by: 	Audited by: K.A	Prototype Approval:	N/A
Date: 09/12/20	Date: 09/12/21	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	06.05.24	New Issue P/O D2360	KJ/JLM	
B	07.07.17	Dwg Rev. updated	KJ/JLM 	



DESIGN BW	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED CE	APPROVED HA	DRAWING NO. D2360	REV. D SHEET 1 OF 2
DATE 07.06.06		TITLE LITTER TIE DOWN ASSEMBLY (LOCKING) NTS	
A	95.02.10	NEW ISSUE	
B	95.02.20	RE-DESIGN	
C	97.08.27	ADD MS20470AD3-4 RIVET	
D	07.06.06	D2002-015 WAS D2376; SECTION B-B QTY(2) AN960JD10 WAS QTY(3) QTY(8) AN960JD10L WAS QTY(5)	

RELEASED

07 06 07

PARTS LIST:

QTY	PART NUMBER	DESCRIPTION
X	D2360	LITTER TIE DOWN ASSEMBLY (LOCKING)
1	D2341	LITTER TIE DOWN (LOCKING)
1	D2345	LOCK CHANNEL
2	D2366	LOCK HANDLE
1	D2367	KNOB (DELRIN)
2	D2372	QUICK RELEASE FASTENERS
1	D2373	SPRING
2	D2002-015	KNOB (DELRIN)
1	D2444	PIP PIN
1	AN526C1032R18	SCREW
2	AN960JD10	WASHER
8	AN960JD10L	WASHER
1	MS20470AD3-4	RIVET
3	MS21042L3	NUT (OR MS21042-3)
1	MS27039-1-13	SCREW
2	MS27039-1-15	SCREW
1	NAS679A3W	NUT

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 34720

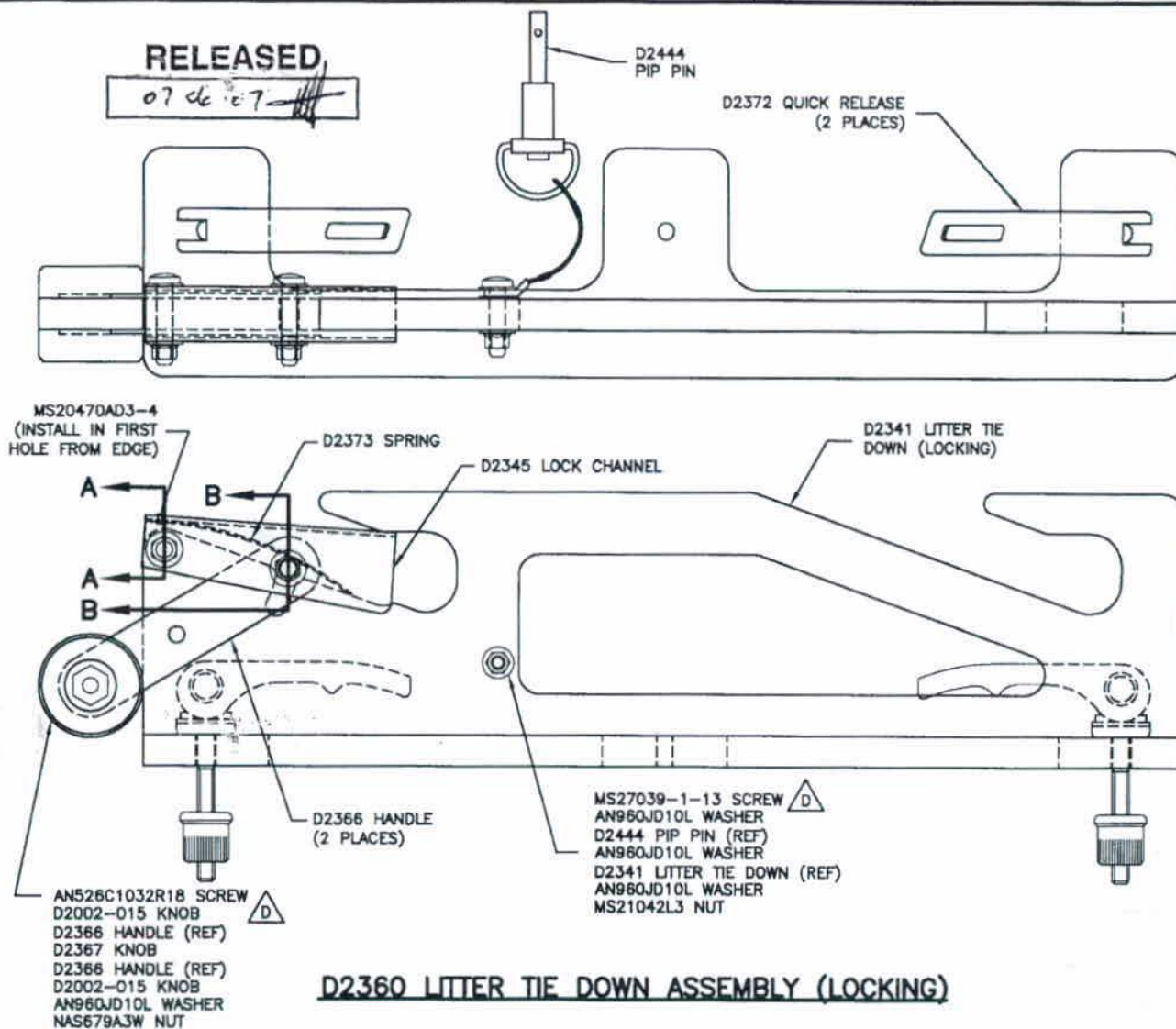
11/09/12-17

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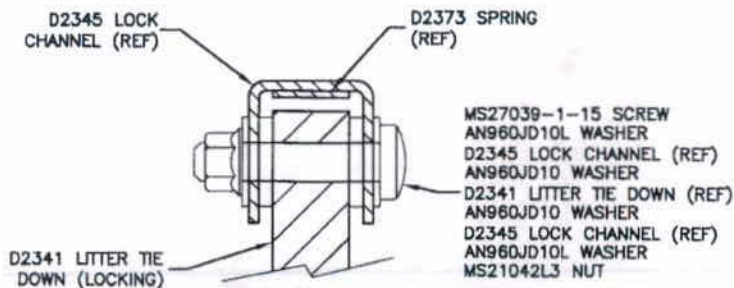
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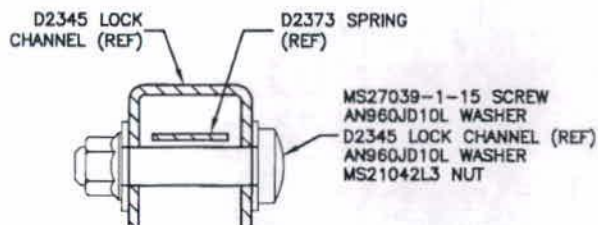
DESIGN BW	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED LE	APPROVED H	DRAWING NO. D2360	REV. D SHEET 2 OF 2
DATE 07.06.06	TITLE LITTER TIE DOWN ASSEMBLY (LOCKING) NTS		



D2360 LITTER TIE DOWN ASSEMBLY (LOCKING)



SECTION A-A
(SCALE 1:1)



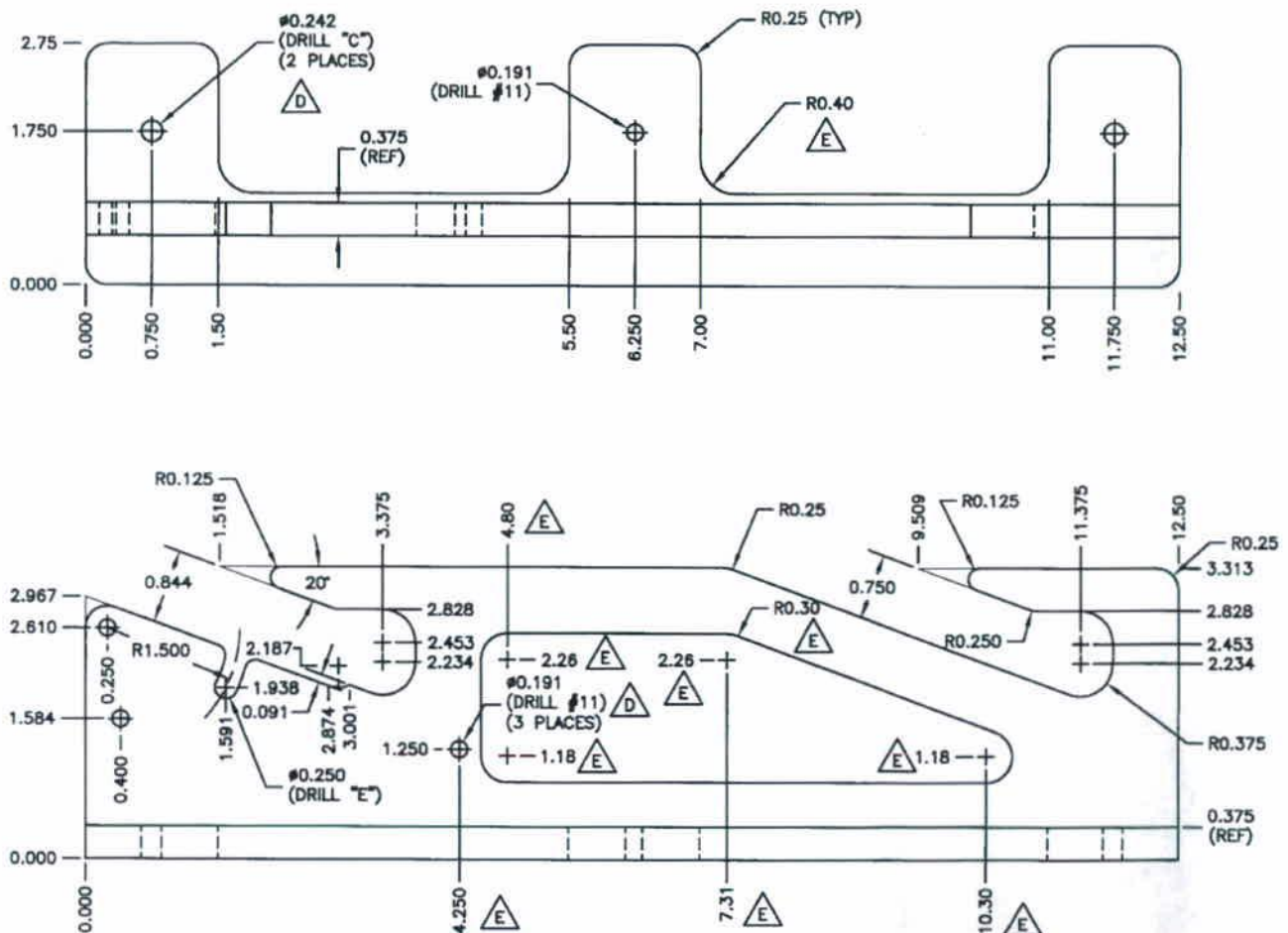
SECTION B-B
(SCALE 1:1)

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DART

DESIGN BW	DRAWN BY JC	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D2341	REV. F SHEET 1 OF 1
DATE 07.06.07		TITLE LITTER TIE DOWN BRACKET (LOCKING)	SCALE 1:2
A	95.01.13	NEW ISSUE	
B	95.02.14	MODIFIED LOCK	
D	95.02.20	CHANGES TO DIAMETERS	
E	97.10.01	CHANGES FOR MACHINING	
F	07.06.07	REVISED NOTES; FINISH WAS ANODIZE	

**D2341 LITTER TIE DOWN BRACKET (LOCKING)**

- 1) MATERIAL: MAKE FROM D6201-0125 EXTRUSION
(6061-T6/T651 PER QQ-A-200/8)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (REF. 4.3.5.1) PER QSI 005 4.3
- 3) BREAK ALL SHARP EDGES TO 0.005 TO 0.010
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 6) IDENTIFY WITH DART P/N "D2341" USING FINE POINT
PERMANENT INK MARKER

RELEASED

07.06.22 [Signature]

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